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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,418	09/24/2004	Eric Johannes Puik	TS1099US	3298
23632	7590	01/30/2006	EXAMINER	
SHELL OIL COMPANY P O BOX 2463 HOUSTON, TX 772522463			UPTON, CHRISTOPHER	
			ART UNIT	PAPER NUMBER
			1724	
DATE MAILED: 01/30/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/509,418

Applicant(s)

PUIK, ERIC JOHANNES

Examiner

Christopher Upton

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

1. Claims 5, 8-16, 19 and 21-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The dependencies of the claims should be amended to provide proper antecedent basis for the elements recited. For example, claim 5 recites a further limitation to the second outlet, therefore, it appears that the claim should depend from claim 4.

In addition, claims 13, 14 and 22 are unclear, as claims 13 and 22 do not structurally relate the two riser sections to each other or to the device as a whole; while claim 14 does not locate the second level controller. Furthermore, the recitation of an intermediate phase in the claims is unclear. It is suggested that the claims be clarified to recite that the lower density phase initially separated comprises an intermediate and a light phase.

2. Claims 1-4, 6-13, 17, 18 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent 1044711 or Polderman in view of Worthington, Tuttle or Schmit et al.

The European patent (of which Polderman is the US equivalent) discloses a fluid separator having a horizontal supply pipe, an inclined pipe, and a pair of risers for separating oil, water and gas, substantially as claimed. These references do not disclose a level controller to monitor interface and control the high density outlet, rather, they disclose manual control of the interface by a valve. It is well known to use level

monitors to control an interface by controlling the outlet valves of a separator, as exemplified by Worthington, Tuttle and Schmit. It would therefore have been obvious for one skilled in the art to add such a level control system to the device of the European patent and Polderman, to automate the control process.

3. Claims 1-4, 6-15, 17, 18 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent 1044711 or Polderman in view of Millard.

The European patent and Polderman disclose a fluid separator having a horizontal supply pipe, an inclined pipe, and a pair of risers for separating oil, water and gas, substantially as claimed. These references do not disclose a level controller to monitor the interface and control the high density outlet, nor do the disclose monitoring the interface of intermediate and light phases and controlling the flow of the lighter density outlet. It is well known to use level monitors to control an interface by controlling the outlet valves of a separator, for both heavy and light phases, as exemplified by Millard. It would therefore have been obvious for one skilled in the art to add such a level control system to the device of the European patent and Polderman, to automate the control process and to improve light liquid and gas separation.

4. Claims 5 and 19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The recitation of a method and apparatus for separating fluids having a horizontal supply pipe connected to an inclined pipe with a heavy/light interface

monitor, a low density fluid outlet, a high density fluid outlet at the inclined pipe with a variable flow controlled by the level controller, and a second high density fluid outlet in the bottom of the horizontal supply pipe patentably distinguishes over the prior art of record.

Claims 16 and 25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

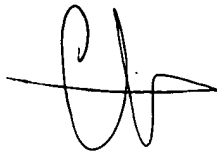
The recitation of a method and apparatus for separating fluids having a horizontal supply pipe connected to an inclined pipe with a heavy/light interface monitor, a low density fluid outlet, a high density fluid outlet at the inclined pipe with a variable flow controlled by the level controller, and a riser section for separating the low density fluid into intermediate and light phases, with a pressure controller for monitoring and controlling the flow of the low density fluid patentably distinguishes over the prior art of record.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Other references of interest include Edmondson, Macy, Peters, Binsfeld, Komistek, Combs, Archibald, and Marker.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Upton whose telephone number is 571-272-1169. The examiner can normally be reached on 7:30-5:00, off every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'CU' with a horizontal line extending to the right.

Christopher Upton
Primary Examiner
Art Unit 1724